

WHAT IS CLAIMED IS:

1. A friction stir welding method, comprising the steps of:
 - abutting a first panel and a second panel,
 - each of said first and second panels comprising a first plate, a second plate which is substantially in parallel to said first plate, and a third plate connecting a midway of one end side of said first plate and said second plate, and being substantially orthogonal to said first plate;
 - positioning outer faces of said first plates of the first and second panels at substantially a same plane;
 - abutting said third plates together to provide an abutted portion of said first and second panels; and
 - under a condition where said first plates are mounted on a bed and under a condition where a rotary tool is inserted to said abutted portion from an upper location, carrying out a friction stir welding of said abutted portion.
2. A friction stir welding method according to claim 1, wherein a welding depth of the friction stir welding is larger than a plate thickness of said second plate.
3. A friction stir welding method, comprising the steps of:
 - abutting a first panel and a second panel,
 - each of said first and second panels comprising a first plate, a second plate which is substantially in parallel to said first plate, a core member

provided between said first plate and said second plate, and an edge member arranged between said first plate and said second plate and formed substantially orthogonal to said first plate;

locating faces of outer portions of said first plates of said first and second panels at substantially a same plane;

abutting said third plates together to provide an abutted portion of said first and second panels; and

under a condition where said first plates are mounted on a bed and under a condition where a rotary tool is inserted to said abutted portion from an upper location, carrying out a friction stir welding of said abutted portion.

4. A friction stir welding method for forming a structure body, comprising the steps of:

abutting a first panel and a second panel, providing an abutted portion therebetween,

each of said first and second panels comprising a first plate, a second plate which is substantially parallel to said first plate, and a third plate connecting a midway of one end side of said first plate and said second plate and being substantially orthogonal to said first plate,

said first and second panels being abutted such that outer faces of said first plates of said first and second panels are at substantially a same plane, and

said first plates, said second plates and said third plates being abutted at said abutted portion; and

carrying out friction stir welding at said abutted portion.

5. A friction stir welding method according to claim 4, wherein:
 - the first plates of the first and second panels are welded by the friction stir welding, and the second plates of the first and second panels are welded by the friction stir welding;
 - a welding depth of a side of said first plates, made by the friction stir welding, is larger than a plate thickness of said first plate; and
 - a welding depth of a side of said second plates, made by the friction stir welding, is larger than a plate thickness of said second plate.

6. A structure body, comprising:
 - first and second panels abutted to each other, forming an abutted portion therebetween,
 - the abutted portion of said first panel and said second panel having a friction stir welding,
 - each of said first and second panels comprising a first plate, a second plate which is substantially parallel to said first plate, a core member provided between said first plate and said second plate, and an edge member arranged between said first plate and said second plate and formed substantially orthogonal to said first plate,
 - outer faces of said first plates of the first and second panels are formed at substantially a same plane, and
 - said first plates, said second plates and said third plates are abutted.